Weekly Influenza Surveillance Report

Maryland Department of Health and Mental Hygiene | Infectious Disease and Environmental Health Administration
Office of Infectious Disease Epidemiology and Outbreak Response

SYNOPSIS

During week 45 in Maryland, one hospitalization associated with influenza was reported. No outbreaks of influenza or influenza-like illness (ILI) were reported. The proportion of visits to providers for ILI was below baseline, and the proportion of Maryland residents reporting ILI was also low. Given this information, influenza activity in Maryland for week 45 was **SPORADIC**, the same level as last week, with small numbers of laboratory-confirmed influenza and no increase in the proportion of visits to sentinel providers due to ILI.

CDC is introducing another activity indicator based on ILI reports from sentinel providers this season. The "ILINet State Activity" indicator, which ranges from "minimal" to "high", describes the proportion of visits to sentinel providers for ILI when compared to weeks during the year when influenza is not active. Used in conjunction with the geographic spread of influenza activity (this week's "sporadic" description), this is another indicator used to better describe influenza activity.

INFLUENZA-LIKE ILLNESS SURVEILLANCE (ILINet)

During week 45, 18 sentinel providers reported 77 (1.5%) of 5,283 visits to their practices were for ILI. This is below the state baseline of 5.6%.

This same week last season, when influenza activity peaked late in October of 2009, the proportion of visits for ILI was 5.6%. In October of 2008, the proportion of visits for ILI was 0.8%.

For more information on the US Outpatient Influenza-like Illness Reporting Network (ILINet), please visit our website: http://dhmh.maryland.gov/fluwatch and click on "ILINet Sentinel Providers".

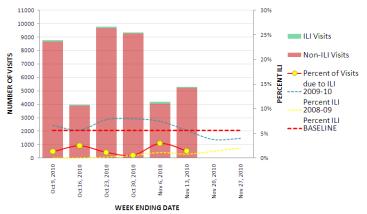


Figure 1. Number of visits and proportion of visits for ILI to ILINet sentinel providers, 2010-11 influenza season

CLINICAL LAB REPORTS OF RAPID FLU TESTING

During week 45, 17 clinical laboratories reported 7 (2.1%) of 327 rapid influenza tests as positive. Four were positive for type A, and three were positive for type B influenza. This proportion of positive tests was much lower than the proportion reported at this time last season, which was 13.3%.

Early in the season, when influenza is not very prevalent (established) in the community, rapid influenza tests tend to be less accurate than PCR tests or viral culture. So these results should be taken with that caveat.

Type of Positives	Number (%)
Type A	15 (71%)
Type B	6 (29%)
Positive, but not typed	0
Total Positive	21 (100%)

Table 1. Number of positive rapid influenza tests, by type, reported by collaborating clinical laboratories, 2010-11 season



Figure 2. Number and result of rapid tests reported by clinical laboratories, 2010-11 influenza season

GET VACCINATED!

Go to

<u>http://dhmh.maryland.gov/swineflu/getVaccinated.html</u> and find your local health department for more information.

MARYLAND RESIDENT INFLUENZA TRACKING SURVEY (MRITS)

During week 45, 636 (41.3% of total) participants in the MRITS responded to the weekly survey. Of those who responded, 11 (1.7%) reported flu-like illness. This proportion is lower than this same week last season, when about 8% of respondents reported flu-like illness.

We are always looking for more participants for the MRITS. If you know someone who would like to participate, please direct them to our website: http://dhmh.maryland.gov/flusurvey.

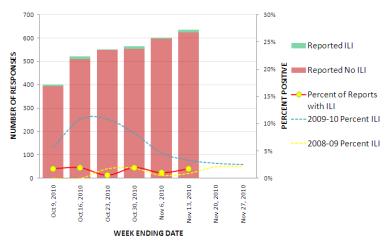


Figure 3. Number of responses and proportion reporting ILI to the MRITS by week, 2010-11 influenza season

DHMH LABORATORIES ADMINISTRATION REPORTS

During week 45, the DHMH Laboratories Administration performed a total of 19 PCR tests for influenza. All were negative for influenza. The table to the right shows the breakdown of positive tests by influenza strain for the 2010-11 influenza season.

During the 2009-10 influenza season, the DHMH Labs Administration reported over 1,900 positive PCR tests for influenza, with 99% of them being the H1N1 pandemic strain.

More information on the valuable work done by the DHMH Laboratories Administration is available at http://dhmh.maryland.gov/labs.

Influenza Type	Number (%)
TYPE A	0
H1 (Seasonal and Pandemic)	1 (33%)
Н3	1 (33%)
Unsubtyped	0
ТҮРЕ В	1 (33%)
TOTAL	3 (100%)

Table 1. Number of respiratory samples positive for influenza by PCR reported by the DHMH Labs Administration, 2010-11 influenza season

EIP INFLUENZA HOSPITALIZATION SURVEILLANCE

During week 45, one hospitalization associated with influenza was reported to the Emerging Infections Program (EIP). The person hospitalized was in the 25-49 age group. To date, there have been 20 hospitalizations associated with influenza reported to EIP.

To be a confirmed hospitalization associated with influenza, the person must be hospitalized and have a positive influenza test of any kind (rapid test, PCR, culture).

This week last season, a total of 236 hospitalizations were reported as influenza activity was peaking in Maryland. A total of 1,400 hospitalizations were reported to EIP last season.

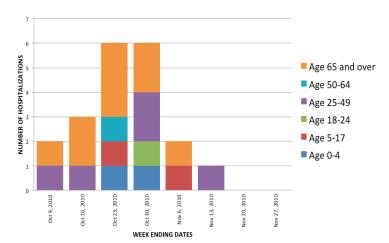


Figure 4. Number of hospitalizations associated with influenza, by age group and week, reported to the Emerging Infections Program, 2010-11 influenza season

DID YOU KNOW?

According to CDC, people with asthma are no more likely to acquire influenza than any other group. However, people with asthma are more likely to suffer from complications from influenza. This is because asthma is a respiratory condition that is easily exacerbated by respiratory infections like influenza. People with asthma are recommended to seriously consider getting the flu vaccine and possibly prevent influenza and its complications. Dean Cain, who played Superman on television in the 1990's, has asthma, and he talked about his story at http://facesofinfluenza.com, a site from the American Lung Association, showcasing true stories of the flu affects people form all walks of life.

REPORTS OF OUTBREAKS IN INSTITUTIONAL SETTINGS

No outbreaks of influenza, influenza-like illness, or pneumonia were reported to DHMH during week 45. Last season, a total of 208 outbreaks of respiratory illness were reported during the 2009-10 influenza season. Of those, 33 were confirmed as influenza outbreaks. Institutional settings include schools, hospitals, colleges and universities, and long-term care locations. An outbreak of ILI is re-classified as an outbreak of influenza if there is laboratory evidence of influenza virus present in the samples collected from case-patients during the outbreak.

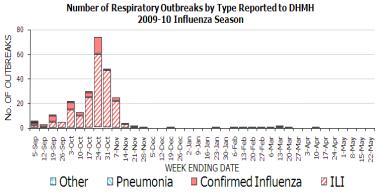


Figure 5. Number of outbreaks reported by week and by type during the 2009-10 influenza season. There have been no outbreaks of respiratory disease reported, 2010-11 influenza season.

EMERGENCY DEPARTMENT ILI REPORTS (ESSENCE)

During week 45, a total of 39,617 visits to emergency departments for all reasons were reported to the Office of Preparedness and Response through the ESSENCE system. Of those visits, 495 (1.3%) were for influenza-like illness. This is about the same proportion reported at this time during the 2008-09 influenza season, and lower than the 5.1% reported at this time last season (2009-10).

For more information on ESSENCE, please visit the Office of Preparedness and Response's web site at: http://bioterrorism.dhmh.state.md.us.

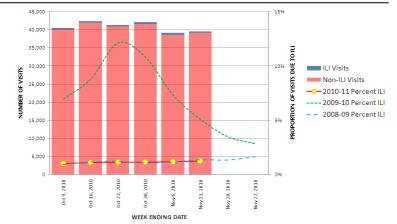


Figure 6. Number and proportion of visits to emergency departments for ILI by week reported through ESSENCE, 2010-11 influenza season.

GOOGLE FLU TRENDS

According to Google, influenza activity in Maryland is currently "LOW". What does this mean? From the Google Flu Trends Website: "We have found a close relationship between how many people search for flurelated topics and how many people actually have flu symptoms. Of course, not every person who searches for 'flu' is actually sick, but a pattern emerges when all the flu-related search queries are added together. We compared our query counts with traditional flu surveillance systems and found that many search queries tend to be popular exactly when flu season is happening. By counting how often we see these search queries, we can estimate how much flu is circulating in different countries and regions around the world."

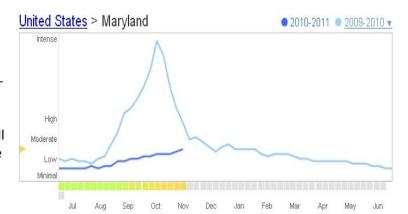


Figure 7 – According to Google Flu Trends, influenza activity in Maryland is currently "low". At this time last year, during the 2009 H1N1 influenza pandemic, influenza activity in Maryland was "high" to "intense".

DID YOU KNOW?

Adult vaccination data from the 2009 National Health Interview Survey (NHIS) showed that vaccination rates for all vaccine types were highest among seniors and lowest among minority groups. With influenza vaccine in particular, it was found that 69% of non-Hispanic Whites get their flu vaccine each year, compared to 51% of non-Hispanic Blacks and Hispanic/Latinos. Also, only about 53% of health care providers take the flu vaccine, an increase of 7% over the 2008 survey. More at: http://tinyurl.com/24y55cw

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ALL THE INFORMATION INCLUDED IN THIS REPORT IS PROVISIONAL AND SUBJECT TO CHANGE AS MORE DATA ARE RECEIVED FROM SURVEILLANCE SOURCES.

THE INFORMATION INCLUDED IN THIS REPORT IS NOT INTENDED TO BE USED FOR INDIVIDUAL DIAGNOSES.

ONLINE VERSION OF THIS REPORT AND PAST SEASONS' REPORTS MAY BE DOWNLOADED AT:

DHMH.MARYLAND.GOV/FLUWATCH

FLU SURVEILLANCE IN NEIGHBORING STATES:

DELAWARE-

HTTP://BIT.LY/9Zkp3

DC-

http://tinyurl.com/yj7br9e

PENNSYLVANIA-

http://tinyurl.com/37323xn

VIRGINIA-

http://tinyurl.com/kmnaeu

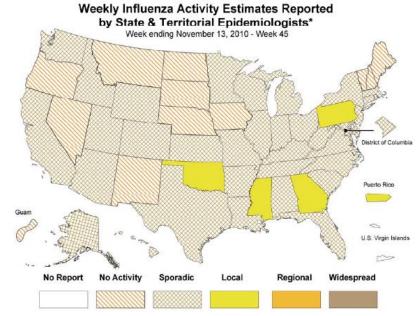
WEST VIRGINIA-

http://tinyurl.com/2u53nuc

CDC NATIONAL INFLUENZA SURVEILLANCE REPORT (http://cdc.gov/flu/weekly)

During week 45 (November 7-13, 2010), influenza activity remained low in the United States.

- Of 2,876 specimens tested by U.S. World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System (NREVSS) collaborating laboratories and reported to CDC/Influenza Division, 220 (7.7%) were positive for influenza.
- The proportion of deaths attributed to pneumonia and influenza (P&I) was at the epidemic threshold.
- No influenza-associated pediatric deaths were reported.
- The proportion of outpatient visits for influenza-like illness (ILI) was 1.3%, which is below the national baseline of 2.5%. All 10 regions reported ILI below region-specific baseline levels; one state experienced moderate ILI activity; one state experienced low ILI activity, and 48 states experienced minimal ILI activity.
- Geographic spread of influenza in Puerto Rico and four states was reported as local; the District of Columbia and 34 states reported sporadic activity; Guam and 12 states reported no influenza activity, and the U.S. Virgin Islands did not report.



Influenza-Like Illness (ILI) Activity Level Indicator Determined by Data Reported to ILInet
2010-11 Influenza Season Week 45 ending Nov 13, 2010

